

CLAIMS

1. Payment system utilizing so called "smart cards", which include a microprocessor attached to the card with associated memory circuits for storage of program software and transactions, and which via a terminal can be supplied an available and for the card holder useable amount, from which reduction can be made via a pay terminal when the card is used as a means of payment, and that a unique card number for said card, together with a PIN code registered for the card, are transformed by means of the card micro processor into a unique user certificate for each individual card, which is used for verification of the authority of the user, c h a r a c t e r i s e d i n,

that said card includes stored information relating to a maximum level of amount to which the card can be used without stating PIN code, and information relating to the maximum number of such transactions that can be performed without the card communicating and transferring information of executed transactions to the bank holding the account or similar party, such transactions being registered and stored in the memory circuits of the card with a corresponding reduction and storage of remaining available amount and remaining number of allowed executable transactions;

20 that said card when used in connection with payment terminals not communicating on-line performs storage of transaction data in the memory circuits of the card as well as in the payment terminal; and

that said card, when inserted into a reading terminal having direct connection to the bank holding the account or similar party, performs transfer of stored transaction data in the card for registration/checking recorded transactions with said bank or similar, and that preferably also at the same time limit values for total number of transactions allowed without stating PIN code, as well as maximum total amount limit for such transactions, are updated/restored.

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2. Payment system according to claim 1, c h a r a c t e r i s e d i n, that same additionally includes the steps:

that insertion of a non-valid card in a directly communicating terminal, or a non-directly communicating terminal having memory stored bar list information relating to blocked cards, results in transfer to the terminal of stored transaction information in the non-valid card, as well as available program software on the card, which completely or partly is

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stored in the terminal, or at a directly communicating terminal, is transferred via the terminal;

that as a successively following step said information/program software as substantially  
5 as possible is erased from the card; and

that said obtained information as soon as possible is transferred to the account holding bank or similar with information relating to the identity of the terminal and the time when the action was performed.

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3. Payment system according to any one of claims 1 or 2, characterised in, that same additionally includes the steps:

to facilitate transfer of an amount between two cards with use of a terminal included in the  
15 payment system, whereby a first card as an initial step is placed in a terminal with input of type of transaction, PIN code and intended amount;

that as a following step verification is performed of card and PIN code, requested amount is reserved, and a time restricted certificate is created for the terminal used;

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that the second and receiving card is placed in the terminal within a predetermined time period with input of the PIN code for the second card, whereby the amount in question is transferred and registered as a completed transaction; and

25 that should the second and receiving card not be placed in the terminal within said predetermined time period, the transaction is annulled as not completed.

4. Payment system according to any one of the preceding claims, characterised in, that same additionally includes the steps:

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to facilitate payment from card to any desired bank account by placing the card in question in a terminal connected to the system with input of PIN code;

that amount, clearing number of receiving bank and recipient's account number is inputted;

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that the amount stated thereby is transferred to requested account and that available

amount on the card is reduced with the corresponding amount.

5. Payment system according to any one of the preceding claims, characterised in, that same additionally includes the steps:

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to facilitate payment via Internet or similar by placing the card in a card reader connected to a computer with related program software;

that used program software in a following step preferably is synchronized with the program  
10 software of a seller, with whom the computer is communicating;

that the PIN code of the card is stated, and that based on card data and PIN code an encoded certificate identifying the holder of the card is transferred to the seller;

15 that the seller adds to received encoded certificate information relating to the actual amount to be charged to the buyer, and transfers this information to the account holding bank or similar;

that said account holding bank or similar, after checking the authority of card holder and  
20 seller, issues a preliminary certificate (claim) relating to the transaction, which via the seller is transferred to the card holder;

that the card holder from said certificate receives information concerning at least the amount in question, and that the card holder in order to finalize the purchase directly to the  
25 account holding bank or similar transfers received preliminary certificate verified as approved (a token); and

that the account holding bank or similar performs a checking operation relating to correspondence between earlier "claim" and received "token", and if correspondence is  
30 established on one hand reduces existing amount on the card, and on the other hand transfers a certificate to the seller, who is thereby credited the amount in question.

6. Payment system according to any one of the preceding claims, characterised in, that same additionally includes the steps:

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to facilitate payment via Internet or similar to a seller who has previously stored information relating to the unique identity (certificate) of a certain card holder by the placement of the

card in a card reader connected to a computer having associated program software, and that utilized program software in a following step is preferably synchronized with the program software of the seller, with whom the computer is communicating, and that the PIN code of the card thereafter is stated, whereby based on card data and PIN code an  
 5 encoded and the card holder identifying certificate is transferred to and stored by the seller; whereby

the seller to previously stored encoded certificate adds information relating to the present amount to be charged to the buyer, and transfers this information to account holding bank  
 10 or similar;

said account holding bank or similar, after having performed a checkup of the authority of card holder and seller, issues a preliminary certificate (claim) related to the transaction, which via the seller is transferred to the buyer;

15 whereby the card holder from said preliminary certificate receives information of at least the present amount, and to finalize the purchase directly to account holding bank or similar transfers received preliminary certificate verified as an approval of the transaction (a token); whereafter

20 the account holding bank or similar performs a checkup regarding correspondence between earlier "claim" and received "token", and if correspondence is established on one hand reduces existing amount on the card, and on the other hand transfers a certificate to the seller, who is thereby credited the amount in question.

25 7. Payment system according to any one of the preceding claims, characterised in, that same additionally includes the steps:

to facilitate blocking of a card at any terminal within the payment system by inputting the  
 30 identifying number of the card and associated PIN code;

that the card identifying information is added to a blocking list;

and that preferably substantially the total available amount for the blocked card is returned  
 35 to the account of the card holder or to a new card issued to the card holder.

8. Payment system according to any one of the preceding claims, characterised

in, that same additionally includes the steps:

to facilitate transfer of data from a terminal not communicating on-line via transfer card having memory capacity for the transaction data stored in the terminal not communicating  
5 on-line, said data being transferable to account holding bank or similar by means of a terminal connected to the system.

9. Payment system according to any one of the preceding claims, characterised in, that same additionally includes the steps:

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that a card holder using any terminal connected to the system by insertion of the card and input of associated PIN code is given the possibility to change registered PIN code.

10. Payment system according to any one of the preceding claims, characterised  
15 in, that same additionally includes the steps:

that for a certain geographical area program the card for a certain number of cost units related to public transport, which can be used without PIN code being required;

20 that the public transport company utilizes card readers which read whether or not travel has commenced during a predetermined period of time, and if so, accepts earlier made charge to the card as payment, thereby facilitating continued travel free of charge during said predetermined period of time.

25 11. Payment system according to any one of the preceding claims, characterised in, that verification of the validity of a card also includes the step:

to check if the card has not been used during a predetermined period of time, e.g. 12 months, and at attempts to use such an unused card block and empty same of stored data  
30 and accessible program software.

12. Payment system according to any one of the preceding claims, characterised in, that on receipt of data from a terminal included within the system indicating a user with a card related to another payment system, e.g. credit, pay or bank cards with information  
35 stored in a magnetic strip, independently or via switching through to the system in question, also give acceptance to such verified and accepted cards as approved means of payment within the system.